

**Galileo Doppler Scintillation Measurements of the
February 3, 1997 and February 7, 1997 CMEs
observed by LASCO on SOHO**

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Investigations of CMES based on joint Doppler scintillation and white-light measurements have been conducted in the past with the Solwind coronagraph. These have yielded radial profiles of interplanetary shock speed showing acceleration near the Sun followed by deceleration farther out (Woo et al., JGR, 90, 154, 1985).

In this paper, we present the first simultaneous Doppler scintillation measurements carried out with the SOHO white-light coronagraph (LASCO). Two CM Es were observed off the west limb in Galileo S-band Doppler scintillation measurements near $50 R_{\odot}$: a 3-part CME on February 3, 1997, and a halo event on February 7, 1997. Radial profiles of interplanetary shock speeds are better defined with LASCO because of its large field of view, and Doppler scintillation measurements complement the LASCO measurements by providing observations beyond the field of view of LASCO. The combined Doppler scintillation and white-light results show that while there is considerable acceleration of these CMES inside $20 R_{\odot}$, there is little acceleration in the range of 20 - $50 R_{\odot}$. The profiles of Doppler scintillation (rms of path-integrated electron density fluctuations) for the two CMES are also found to be very different, indicating considerable differences in CME morphology.